TRANSMITTAL OF APPEAL BRIEF (Large Entity)	Docket No. 1941

In Re Application Of: **HOFMANN, F., ET AL**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/030,282	03/25/2002	WOZNIAK, J.	278	2626	9040

Invention: **METHOD FOR PREPARING AUDIO DATA...**

COMMISSIONER FOR PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on:

07/08/2008

The fee for filing this Appeal Brief is: **$510.00**

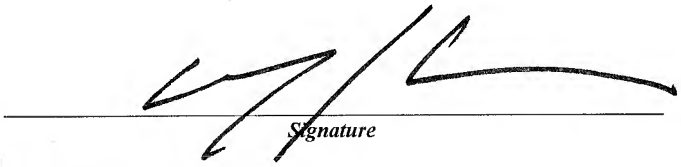
☐ A check in the amount of the fee is enclosed.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. _____. I have enclosed a duplicate copy of this sheet.

☒ Payment by credit card. Form PTO-2038 is attached.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.



Signature

Dated: **08/21/2008**

MICHAEL J. STRIKER
REG. NO.: 27233
ATTORNEY FOR APPLICANT

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

_____.
(Date)

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

cc:

United States Patent and Trademark Office

Examiner: James S. Wozniak *Docket No.:* 1941 *Art Unit:* 2626

In re:

Applicant: *HOFMANN, Frank*

Serial: 10/030,282

Filed: March 25, 2002

APPEAL BRIEF

August 21, 2008

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sirs:

Appellant submits the following for his brief on appeal and respectfully requests consideration of same. Appellant requests withdrawal of the rejections made and that the Application be placed in line for Allowance.

I. REAL PARTY IN INTEREST

The real party in interest in the instant application is the assignee of the application, Robert Bosch GmbH, Stuttgart, Germany.

II. RELATED APPEALS AND INTERFERENCES

Appellant is unaware of any related appeals or interferences with regard to the application.

III. STATUS OF CLAIMS

Claims 1, 2 and 4-8 are rejected. Claim 3 was canceled previously. Claims 1, 2 and 4-8 are appealed.

IV. STATUS OF AMENDMENTS

A final Office Action finally rejecting claims 1, 2 and 4-8 was mailed on May 19, 2008. Appellant filed his Notice of Appeal on July 8, 2008. Appellant files an Amendment Under 37 CFR 1.116 concurrently herewith to amend claim 2 in response to the Objection to claims 2 and 5, as set forth in the May 19, 2008 final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 defines a method for transmission-end preparation of source-coded audio data of at least one useful signal source (1), in particular for

transmission via independent AM frequency channels of a predetermined broadcast channel raster **(Fig. 1; page 1, lines 5-7)**, comprising the steps of

separating the source-coded audio data of at least one useful signal source (1) into a main data stream (HD) and at least one auxiliary data stream (ZD) **(Fig. 1; page 3, lines 12-15)**, where the main data stream (HD) contains at least the amount of information that is required for a comprehensible reproduction of at least one useful signal source (1) and the auxiliary data stream (ZD) contains information for quality improvement **(page 4, lines 2-10)**,

modulating the main- and auxiliary data streams (HD, ZD) and accomodating in respective different independent AM frequency channels (K1, K2) of the predetermined broadcast channel raster **(Fig. 2; page 3, lines 15-19)**, and

incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided **(Fig. 3; page 5, lines 19-24)**.

Independent claim 2 sets forth a method for receiver-end preparation of audio data **(Fig. 3; page 1, lines 5-7)**, which are contained in main- and auxiliary data streams (HD, ZD), in particular for transmission via independent frequency AM channels of a predetermined broadcast channel raster **(Fig. 2; page 3, lines 15-19)**, where mutually associated main- and auxiliary data streams (HD, ZD) each originate from at least one useful signal source (1) and the mutually associated main- and auxiliary data streams are accommodated in respective

different independent AM frequency channels (K1, K2) of the predetermined broadcast channel raster **(Fig. 2; page 3, lines 19-21)**, comprising the steps of

incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided **(Fig. 3; page 4, lines 19-24)**,

intentionally using a receiver (7) with higher reproduction quality to demodulate and decode only the main data stream (HD) or the main data stream (HD) and the auxiliary data stream (ZD) **(Fig. 3; page 4, lines 12-15)**, and

demodulating and decoding at least one associated auxiliary data stream (ZD), where mutually associated demodulated and decoded data streams are linked to one another in such a way that an increase is achieved in the reproduction quality for the at least one useful data source (1) **(Fig. 3; page 4, lines 14-19)**.

Independent claim 9 sets forth a transmitter **(Fig. 1)** for the preparation of source-coded audio data from at least one useful signal source (1), in particular for transmission via independent AM frequency channels of a predetermined broadcast channel raster **(Fig. 1; page 1, lines 5-7)**, comprising

a separation device (2) for the audio data of a useful signal source (1) into a main data stream (HD) and at least one associated auxiliary data stream (ZD) **(Fig. 1; page 3, lines 12-15)**,

a modulation unit (3) modulating the main- and auxiliary data streams, where this modulation unit (3) can in particular be supplied with carrier signals in

such a way that mutually associated main- and auxiliary data streams can be transmitted in respective different independent AM frequency channels of the predetermined broadcast channel raster **(Fig. 2, page 3, lines 15-22)**, and

means for incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided **(page 4, lines 19-24)**.

Independent claim 10 sets forth a receiver **(Fig. 3; 10)** for receiver-end preparation of source-coded audio data, which are accommodated in main (HD)- and auxiliary (ZD) data streams, in particular for transmission via independent AM frequency_channels of a predetermined broadcast channel raster **(Fig. 1, page 1, lines 5-7)**, comprising

a demodulation unit (8) and decoding unit (9) for at least the main data stream (HD) or for the main data streams (HD) and the auxiliary data stream (ZD) **(Fig. 3; page 4, lines 11-16)**,

an evaluation unit (10) for a signaling and optional additional information, where the signaling indicates which of the independent AM channels of the predetermined broadcast channel vaster contains an auxiliary data stream (ZD) associated with a main data stream (HD) **(Fig. 3; page 4, lines 16-24)** and the optionally provided additional information indicate what information the auxiliary data stream (ZD) contains and how the main data stream (HD) is to be combined with the at least one auxiliary data stream (ZD) on the receiver end **(Fig. 3; page 4, lines 24-29)**,

a linkage unit **(9)** for mutually associated main- and auxiliary data streams, which can be controlled by the evaluation unit (10) **(Fig. 3; page 4, lines 18-19)**, and

means for incorporating a signaling **(Fig. 1; source encoder 2)** into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided **(Fig. 3; page 4, lines 19-24)**.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1, 2, 4, 5, 7 and 8 are unpatentable under 35 U.S.C. §103(a) over US Patent No. 6,353,637 to Mansour, et al. ("Mansour") in view of Nahrstedt, "An Architecture For End-to-end Quality of Service Provision and Its Experimental Validation," 1995 ("Nahrstedt") and further in view of U.S. Patent No. 6,201,798 to Campanella, et al. ("Campanella").

2. Whether claim 6 is unpatentable under 35 USC §103(a) over Mansour in view of Nahrstedt, further in view of Campanella and still further in view of US Patent No. 6,370,666 to Lou, et al. ("Lou").

VII. ARGUMENT

1. Claims 1, 2, 4, 5, 7 and 8 are patentable over Mansour in view of Nahrstedt and further in view of Campanella.

In the final rejection, the Examiner first states that Mansour discloses modulating the main- and auxiliary data streams (HD, ZD) and accommodating in

respective different independent AM frequency channels (K1, K2) **[col. 3, line 50-col. 4, line 4],** but then states that Mansour does not disclose different channels, but that Nahrstedt does. That is, the Examiner argues that Nahrstedt teaches transmitting base and enhancement coded audio streams in different broadcast channels **[pages 49-50]** and that it would have been obvious to modify Mansour with a priority channel concept of Nahrstedt to have a higher quality signal over larger data loss ranges.

The Examiner then argues that Mansour and Nahrstedt fail to disclose signaling into the main data stream (HD) on the transmitter end to indicate whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided, that Campanella inserts a service control header in each audio bit stream frame that includes an auxiliary content indicator and data for referencing an auxiliary data channel **[col. 23, line64-col. 24, line 62]**, and it would have been obvious to modify Mansour and Nahrstedt with Campanella's service control header to dynamically control the reception of an audio broadcast at a remote receiver **[col. 2, lines 3-4]**.

In the Response to Arguments, the Examiner asserts that Mansour's core (109; at f_c) and enhancement data streams (105; f_c+15) are encoded and transmitted in separate AM frequency ranges **[Fig. 1; col. 3, line 50-col. 4, line 4].** The Examiner then states that Mansour does not disclose a multi-carrier configuration that Nahrstedt discloses same at page 49, and that Campanella teaches that an auxiliary data field is used to associate secondary services with

other broadcast channels (col. 23). The Examiner concludes that the proposed combination comprises the invention as claimed.

Appellant respectfully disagrees with these analyses and conclusions. Appellant further disagrees that it would have been obvious to modify Mansour with Nahrstedt, and to modify Mansour with Campanella, or that the proposed combination embodies the invention as claimed. Neither Mansour nor Nahrstedt teach the use of respective different independent AM frequency channels. While Campanella teaches a service control header to provide information about data it does use signaling to determine whether an auxiliary data stream is presented and if so in what independent AM frequency channel. With all due respect, the reasoning asserted by the Examiner appears to be impermissible hindsight, and the rejections based thereon should be overturned.

Mansour discloses a multistream in-band on-channel system, which may be utilized with any desired types of channels. However, the channels in Mansour are subbands, for example subbands 103, 105 and 107 of Fig. 1. Mansour does not disclose that these channels are independent of each other or "respective different independent AM frequency channels" as claimed, disclosing only AM or FM carriers with different subcarriers, as described at col. 4, lines 54-65. In Mansour, only subband and adjacent channel interference are addressed as explained, such that the subband channels as disclosed could not be independent from each other. As such, it would be improper to interpret Mansour's "transmitting different bitstreams through individual subbands" as being equivalent to "transmitting in respective different independent AM

frequency channels of the predetermined broadcast channel raster" as claimed. To interpret "subbands in a digital sideband" as "respective different independent AM frequency channels" would be an interpretation out of the context of Mansour.

Nahrstedt does not remedy the shortcomings of Mansour. Nahrstedt's description of its priority channel concept at pages 49 and 50 does not describe or suggest transmitting base and enhancement coded audio streams in respective independent AM frequency channels, as claimed. Hence, a person of ordinary skill in the art would not have known or even considered combining Nahrstedt with Mansour. Combining Nahrstedt with Mansour, however, still not provide for modulating the main- and auxiliary data streams and accommodating in respective independent AM frequency channels of a predetermined broadcast channel raster, as claimed.

Campanella does not teach the use of independent AM channels, so does not remedy the shortcomings of Mansour and Nahrstedt. Campanella utilizes a service control header, ADF1, to distinguish between primary and secondary services (261) within frames (100). All the information is found in the same frame and belongs together. The information is decoded together in a single decoding unit. In accordance with Campanella's design, information so arranged cannot belong to independent (broadcast) channels decoded in different units.

In applicant's invention as claimed, the channels are respective different independent AM frequency channels, which complicates signaling. The invention overcomes any signaling complications by use of independent AM frequency

channels, and incorporating a signaling in the main data stream to indicate whether an auxiliary data stream is provided for the same useful signal source, and in what independent AM frequency channel it is provided. This feature is specifically defined in each of the independent claims. This signaling is completely different from the signaling disclosed in the Campanella reference.

Campanella does not teach or suggest adding signaling into a main data stream on the transmitter end to indicate whether an auxiliary data stream is provided for a signal source, including identifying which respective different independent AM frequency channel said signal source is provided.

It is respectfully submitted, therefore, that none of Mansour, Nahrstedt or Campanella whether taken alone or in combination disclose modulating the main- and auxiliary data streams (HD, ZD) and accomodating in respective different independent AM frequency channels (K1, K2) of the predetermined broadcast channel raster, and incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided, a requirement of each of independent claims 1, 2, 7 and 8, nor any teaching, suggestion or other reasoning for same.

This clearly means that in order to arrive at applicant's invention from the combination of the references, it would not be sufficient just to combine the references, but instead the teachings of the references or their hypothetical combination proposed by the Examiner should be further modified, and in

particular by including into them the features of the present invention defined in claims 1, 2, 7 and 8.

However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification. This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

> Prior patents are references only for what they clearly disclose or suggest, it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

None of Mansour, Nahrstedt or Campanella suggest the desirability of the claimed invention, so cannot establish a prima facie case of obviousness as clearly set forth in MPEP section 2143.01. In establishing obviousness under Section 103, it is not pertinent whether the prior art device possess the functional characteristics of the claimed invention, if the reference does not describe or suggest its structure. ***In re Mills***, 16 USPQ 2d 1430, 1432-33 (Fed. Cir. 1990).

Therefore, claims 1, 2, 7 and 8 are patentable over the combination of Mansour, Nahrstedt or Campanella. Claims 4 and 5 are dependent from claim 1 and are patentable for at least the same reasons.

2. Claim 6 is patentable over Mansour, Nahrstedt, Campanella and Lou.

The combination of Mansour, Nahrstedt, Campanella and Lou suffers the same shortcomings as Mansour, Nahrstedt and Campanella, as set forth above

with respect to claim 1. Because claim 1 is patentable over Mansour, Nahrstedt and Campanella, dependent claim 6 is also patentable for at least the same reasons.

In view of the foregoing discussion, it is respectfully requested that the Honorable Board of Patent Appeals and Interferences overrule the final rejection of claims 1, 2 and 4-8 over the cited art, and hold that Appellant's claims be allowable over such art.

Respectfully Submitted,

Michael J. Striker
Attorney for Appellants
Reg. No.: 27233
103 East Neck Road
Huntington, New York 11743
631-549-4700

VIII. CLAIMS APPENDIX

Copy of Claims Involved in the Appeal:

1. A method for transmission-end preparation of source-coded audio data of at least one useful signal source (1), in particular for transmission via independent AM frequency channels of a predetermined broadcast channel raster, comprising the steps of

- separating the source-coded audio data of at least one useful signal source (1) into a main data stream (HD) and at least one auxiliary data stream (ZD), where the main data stream (HD) contains at least the amount of information that is required for a comprehensible reproduction of at least one useful signal source (1) and the auxiliary data stream (ZD) contains information for quality improvement,

- modulating the main- and auxiliary data streams (HD, ZD) and accomodating in respective different independent AM frequency channels (K1, K2) of the predetermined broadcast channel raster, and

- incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided.

2. A method for receiver-end preparation of audio data, which are contained in main- and auxiliary data streams (HD, ZD), in particular for transmission via independent frequency AM channels of a predetermined

broadcast channel raster, where mutually associated main- and auxiliary data streams (HD, ZD) each originate from at least one useful signal source (1) and the mutually associated main- and auxiliary data streams are accommodated in respective different independent AM frequency channels (K1, K2) of the predetermined broadcast channel raster, comprising the steps of

incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided,

- intentionally using a receiver (7) with higher reproduction quality to demodulate and decode only the main data stream (HD) or the main data stream (HD) and the auxiliary data stream (ZD), and

- demodulating and decoding at least one associated auxiliary data stream (ZD), where mutually associated demodulated and decoded data streams are linked to one another in such a way that an increase is achieved in the reproduction quality for the at least one useful data source (1).

4. The method according to claim1, further incorporating additional information into an auxiliary data stream (HD), which indicates what information the auxiliary data stream contains and optionally, how the main data stream (HD) is to be combined on the receiver end with the at least one associated auxiliary data stream (ZD).

5. The method according to claim 2, further comprising executing the linkage of the associated main data- and auxiliary data streams in accordance with at least one of the following criteria:

- to reduce the amount of coding artifacts,
- to increase bandwidth for the reproduction of audio data,
- to generate a stereo signal.

6. The method according to claim 1, further comprising using the scalability of MPEG 4 data streams to separate the source-coded audio data of the useful signal source (1) into the main data stream (HD) and at least one auxiliary data stream (ZD).

7. A transmitter for the preparation of source-coded audio data from at least one useful signal source (1), in particular for transmission via independent AM frequency channels of a predetermined broadcast channel raster, comprising

- a separation device (2) for the audio data of a useful signal source (1) into a main data stream (HD) and at least one associated auxiliary data stream (ZD),

- a modulation unit (3) modulating the main- and auxiliary data streams, where this modulation unit (3) can in particular be supplied with carrier signals in such a way that mutually associated main- and auxiliary data streams can be transmitted in respective different independent AM frequency channels of the predetermined broadcast channel raster, and

- means for incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided.

8. A receiver for receiver-end preparation of source-coded audio data, which are accommodated in main (HD)- and auxiliary (ZD) data streams, in particular for transmission via independent AM frequency_channels of a predetermined broadcast channel raster, comprising

- a demodulation unit (8) and decoding unit (9) for at least the main data stream (HD) or for the main data streams (HD) and the auxiliary data stream (ZD),

- an evaluation unit (10) for a signaling and optional additional information, where the signaling indicates which of the independent AM channels of the predetermined broadcast channel vaster contains an auxiliary data stream (ZD) associated with a main data stream (HD) and the optionally provided additional information indicate what information the auxiliary data stream (ZD) contains and how the main data stream (HD) is to be combined with the at least one auxiliary data stream (ZD) on the receiver end,

- a linkage unit for mutually associated main- and auxiliary data streams, which can be controlled by the evaluation unit (10), and

- means for incorporating a signaling into the main data stream (HD) on the transmitter end, which indicates whether an auxiliary data stream (ZD) is provided for the same useful signal source (1) and in what channel it is provided.

IX. EVIDENCE APPENDIX.

None

X. RELATED PROCEEDINGS APPENDIX.

None.